L 27263-66 EWP(k)/EWT(d)/EWT(m)/EWP(h)/T/EWP(l)/EWP(v)/EWP(t) JD/HM

ACC NR: AP6009524 SOURCE CODE: UR/0413/66/000/005/0048/0048

AUTHORS: Kiselev, S. N.; Dedkov, L. K.; Schetchikov, B. A.; Pichugin, V. S.; Prosvirin, A. P.; Gamatudinov, B. I.

ORG: none

TITLE: Automatic welder. Class 21, No. 179402

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 5, 1966, 48

TOPIC TAGS: welder, butt welding, seam welding

ABSTRACT: This Author Certificate presents an automatic welder, using a nonmelting electrode in a protective atmosphere for ring and seam pipe welding. The welder includes an inlet port, ring-shaped rotator, welding head, system of roller supports, mechanisms for moving and correcting the welding head, electrode wire supplies, programmed current switching, and remote control equipment. To permit welding of variable diameter pipe and welding of flanges and rings, the rotator is equipped with a mechanism for displacement in the vertical plane, allowing a rotator body angle of 0--105° with respect to the horizontal. The centering mechanism consists of a fixture which is equipped with grips and shimming rings and a conical screw-driven compensator (see Fig. 1). A second feature has two perpendicular worms as

Card 1/2 UDC: 621.791.856.037

L 27263-66

ACC NR: AP6009524

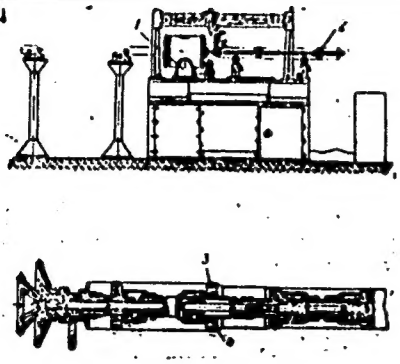

Fig. 1. 1 - vertical displacement mechanism; 2 - centering mechanism; 3 - ring; 4 - conical compensators.

the rotator moving mechanism. Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 22Jun64/

Card 2/2

GAMAY,G. inzhener

Around-the-clock longwall mining by a multiple-purpose brigade.
Mast. ugl. 4 no.2:6-7 F '55. (MLRA 8:6)
(Coal mines and mining)

GAMAYUNOV, A. I.

PA 28T44

USSR/Engineering — Apr 1947
Ice
Bridges - Foundations and Piers

"Estimating the Pressure of Ice Against Bridge Supports," A. I. Gamayunov, Engr, 2½ pp

"Tekh Zheleznykh Dorog" No 4

The question was first studied seriously in 1924 - 1926 during the construction of the Volkhov Hydroelectric Station, but in spite of much research on the subject of ice pressure against bridge abutments the information available is still not satisfactory and much further research is required. The author shows diagrams of apparatus installed on stone bridge

BS — 28T44

USSR/Engineering (Contd) — Apr 1947

islands for measuring the pressure of ice on these supports. Experiments were conducted on the Dneprovsk Bridge, which spans the Dnepr River at Kiev.

BS — 28T44

GAMAYUNOV, A.I., inzhener

Determining the pressure of ice on bridge supports in the conditions of nature. Tekh.zhel.dor.6 no.12:24-25 D'47. (MLRA 8:12)

(Railroad bridges) (Ice on rivers, lakes, etc.)

GAMAYUNOV, A.I., kandidat tekhnicheskikh nauk.

Filtration forms for hardening the concrete surface of bridge supports. (MLRA 9:10)
Transp.stroi.6 no.7:29-30 Jl '56.
(Bridges, Concrete)

GAMAYUNOV, A.I., kandidat tekhnicheskikh nauk.

Pressure of ice on structures. Transp.stroi. 6 no.11:16-18 N '56.
(MLRA 10:1)

(Ice on rivers, lakes, etc.) (Bridges--Design)

KHLEBNIKOV, Ye.L. professor; ANDREYEV, O.V., kandidat tekhnicheskikh nauk; BEGAM, L.G., kandidat tekhnicheskikh nauk; BER[illegible], O.Ya., kandidat tekhnicheskikh nauk; GAMAYUNOV, A.I., kandidat tekhnicheskikh nauk; DUCHINSKIY, B.M., kandidat tekhnicheskikh nauk; KAZEY, I.I., kandidat tekhnicheskikh nauk; [illegible]OKHIN, B.F., kandidat tekhnicheskikh nauk; LUGA, A.A., kandidat tekhnicheskikh nauk; MYALIN, N.B., kandidat tekhnicheskikh nauk; MEL'NIKOV, Yu.L., kandidat tekhnicheskikh nauk; POL'YEVKO, V.P., kandidat tekhnicheskikh nauk; PROKOPOVICH, I.G., kandidat tekhnicheskikh nauk; STRELETSKIY, N.N., kandidat tekhnicheskikh nauk; TYULENEV, Ye.A., kandidat tekhnicheskikh nauk; KHROMETS, Yu.N., kandidat tekhnicheskikh nauk; SHELESTENKO, L.P., kandidat tekhnicheskikh nauk; SHPIRO, G.S., kandidat tekhnicheskikh nauk; YAROSHENKO, V.A., kandidat tekhnicheskikh nauk; ZELEVICH, P.M., inzhener; CHEKO-DAYEV, N.N.; BOBROVA, Ye.N., tekhnicheskiy redaktor.

[Technical specifications for designing bridges and pipes for railroads of a normal gauge (TUPM-56). Effective July 1, 1957 by order of Ministry of Means of Communication and the Ministry of Transportation Construction, September 15, 1956] Tekhnicheskie usloviia proektirovaniia mostov i trub na zheleznykh dorogakh normal'noi kolei (TUPM-56). Vvedeny v kachestve vremennykh s 1 iiulia 1957 g. prikazom Ministerstva putei soobshcheniia i Ministerstva transportnogo stroitel'stva of 15 sentiabria 1956 g. No.250/TsZ/213. Moskva, Gos.transp.zhel-dor.izd-vo, 1957. 221 p. (MLRA 10:5)

1. Russia (1923- U.S.S.R.), Ministerstvo putey soobshcheniya. (Railroad bridges--Design)

14(10) SOV/98-59-6-11/20

AUTHOR: Gamayunov, A.I., Candidate of Technical Sciences

TITLE: Ice Pressure on Inclined Walls

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 6, pp 42-43 (USSR)

ABSTRACT: The author gives a formula for calculating the ice pressure on inclined walls.

$$M_x = \frac{q}{\lambda} e^{-\lambda y} \sin \lambda x.$$

The formula is derived from the formula elaborated by the author for determining the pressure of ice on the inclined ice-breaking edge of a railway bridge pillar. It was published in "Transportnoye stroitel'stvo" Nr 4 (1955). These formulas have also been published in the Tekhnicheskiye usloviya proyektirovaniya mostov i trub na zheleznykh dorogakh normal'noy kolei (TUPM-56) (Specifications for Planning

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SOV/98-59-6-11/20

Ice Pressure on Inclined Walls

Bridges and Culverts on Standard Gage Railways -- TUPM-56). There are 2 diagrams and 2 tables.

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GAMAYUNOV, A.I., kand.tekhn.nauk

Vertical pressure of ice following changes in the level of standing ice. Gidr. stroi. 30 no.9:40-42 S '60. (MIRA 13:9)

(Hydraulic structures) (Ice on rivers, lakes, etc.)

GAMAYUNOV, Matvey Vasil'yevich, kand.ekon.nauk; FALALEYEVA, T.F., red.; GUBIN, M.I., tekhn.red.

[The triumph of Lenin's cooperative plan in the U.S.S.R.] Pobeda Leninskogo kooperativnogo plana v SSSR. Moskva, Izd-vo "Znanie," 1957. 36 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser.3, no.38) (MIRA 11:2)
(Collective farms)

BONDAREVA, I.I., dots., prepodavatel'; GAMAYUNOV, M.V., dots., kand. nauk, prepodavatel'; GOL'DMAN, R.Ya., kand. nauk, prepodavatel'; ZHELUDKOV, A.P., kand. nauk, prepodavatel'; KALININA, V.N., kand. nauk, prepodavatel'; LIFAR', G.G., prepodavatel'; MART'YANOVA, L.P., kand. nauk, prepodavatel'; NEZNANOV, S.V., dots., kand. nauk, prepodavatel'; SALAY, I.G., dots., kand. nauk, prepodavatel'; SASKOVETS, Ye.L., dots., kand. nauk, prepodavatel'; ZENIN, V., red.; DANILINA, A., tekhn. red.

[The party is the organizer of the collective farm system] Partiia - organizator kolkhoznogo stroia. Moskva, Gos. izd-vo polit. lit-ry, 1958. 190 p. (MIRA 11:8)

1. Kafedra marksizma-leninizma Moskovskoy ordena Lenina sel'skokhozyaystvennoy akademii imeni K.A. Timiryazeva (for all except Zenin, Danilina).

(Collective farms)

SOV-3-58-9-11/36

AUTHOR: Gamayunov, M.V., Docent, Moscow Agricultural Academy imeni K.A. Timiryazev

TITLE: Studying the History of the Collectivization of Agriculture (Izucheniye istorii kollektivizatsii sel'skogo khozyaystva)

PERIODICAL: Vestnik vysshey shkoly, 1958, Nr 9, pp 47-50 (USSR)

ABSTRACT: In May 1958, an Intervuz Scientific Conference, organized by the USSR Ministry of Higher Education, took place at Rostov University. The conference theme was: "The World-Wide Historical Significance of the KPSS Experiences in Collectivization of Agriculture". It was attended by over 300 instructors of higher educational institutions from Moscow, Leningrad, Rostov, Chelyabinsk, Sverdlovsk, and representatives from Kazakhstan, Latvia, Lithuania, Estonia and other republics. Instructors probably experienced the greatest difficulty in elucidating the question of how the Party worked out its tactical line in respect to the Kulaks, in particular, how the policy of liquidating the Kulaks as a class was carried out. This was dealt with in the report of Docent P.V. Semernin, Head of the Chair for KPSS History, Rostov University. A decisive stage was during the activity

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of a commission for the all-round collectivization, established in December 1929. The commission came to the conclusion that the liquidation of the Kulaks as a class was historically unavoidable. Candidate of Historical Sciences Liu Yün-an' (Institute of Sinology, USSR AS) reported on the organizing of farms into cooperatives. Docent V.I. Kovrov (Rostov-Don) dealt with the economical and political presuppositions of all-round collectivization while Professor of the Academy of Social Sciences attached to the TsK KPSS, A.V. Bolgov, spoke on the new stage in the development of the kolkhoz regime. Candidate of Historical Sciences M.N. Gioyev, instructor at the North Osetin Pedagogical Institute, informed the audience on the experience in collectivization of agriculture in the North-Osetin ASSR. D.D. Angel'yev, Director of the Sovkhoz "Gigant", Rostov Oblast', and G.I. Romanenko, Secretary of the Taganrog village raykom KPSS also gave reports. The general opinion of the conference participants was that similar conferences should be convened periodically. This opinion was supported by S.A. Yudachev, USSR Deputy Minister of Higher Education.

SOV-3-58-9-11/36

Studying the History of the Collectivization of Agriculture

ASSOCIATION: Moskovskaya sel'skokhozyaystvennaya akademiya imeni K.A. Timiryazeva (Moscow Agricultural Academy imeni K.A. Timiryazev)

Card 3/3

GAMAYUNOV, M.V., dotsent, kand.ekonom.nauk

Creation and development of the collective farm system. Izv.TSKhA no.3:7-26 '59. (MIRA 12:10)
(Collective farms)

GAMAYUNOV, Matvey Vasil'yevich; LEONOVA, T.S., red.; SAVCHENKO, Ye.V., tekhn.red.

[Merging of the two forms of socialist property] Sblizhenie dvukh form sotsialisticheskoi sobstvennosti. Moskva, Izd-vo "Znanie," 1961. 35 p. (Vsesoiuznoe obshchestvo po rasprostraneniiu politicheskikh i nauchnykh znanii. Ser.5, Sel'skoe khoziaistvo, no.7) (MIRA 14:5)

(Socialist property) (Collective farms)

GAMAYUNOV, M.V., kand.ekonomicheskikh nauk, dotsent

Improving the socialistic productional relations in rural areas during the large-scale building of communism. Izv. TSKhA no.4:7-17 '63. (MIRA 14:9)

(Communism) (Russia--Economic conditions)

GAMAYUNOV, M.

Further development of Lenin's cooperative plan. Vop. ekon. no.4:3-14 Ap '62. (MIRA 15:4)
(Lenin, Vladimir Il'ich, 1870-1924) (Collective farms)

GAMANYUNOV, Matvey Vasil'yevich; ZAVERNYAYEVA, L.V., red.; PONOMAREVA, A.A., tekhn. red.

[Development of agriculture and social relations in a village] Razvitie sel'skogo khoziaistva i obshchestvennykh otnoshenii v derevne. Moskva, Ekonomizdat, 1962. 161 p. (MIRA 15:12)
(Agricultural policy) (Russia--Rural conditions)

S/170/59/002/11/005/024
B014/B014

24,5100

AUTHOR: Gamayunov, N. I.

TITLE: A New Method Used to Determine the Coefficients of Heat- and Mass Exchange

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1959, Vol 2, Nr 11, pp 35-42 (USSR)

ABSTRACT: The author first defines the potential Φ of mass transfer and gives a relation between the transfer potential suggested by A. V. Lykov (Ref 5) and this one. Besides, reference is made to experiments performed by M. G. Murashko (Ref 6). Next, the author gives the differential equations (1) - (3) for the heat-and moisture transfer in an infinite isotropic, moist body in the presence of an infinitely long cylindrical heat source. By the use of criteria by Kirpichev, Fourier, and Posnov the author obtains the exact solutions of these equations (9), (10), (12), and (18). The use of these solutions for a direct determination of the heat- and mass coefficients is very difficult, and it is necessary to make use of approximate solutions, which are given by the equations (20), (21), (22), and (23). The approximate solution (22) is unsuited for coarsely disperse material in which the major part of moisture is not filtered radially but downward. Equation (24) furnishes an exact and (25) an approximate solution for this purpose. In carrying out the experiments the apparatus shown in figure 1 was used, in

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A New Method Used to Determine the Coefficients of Heat- and Mass Exchange

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which a moisture potentiometer designed by S. S. Korchunov at the VNIITP was used to determine the potential. It consists of a porous ceramic transmitter and a differential pressure gauge calibrated in cm water column. The following experimental arrangement was applied: The heater probe was introduced into the material to be tested, and the ceramic transmitter and a semiconductor resistance thermometer were set up 40 - 50 mm distant from each other on a circular line. After switching on the current for the heater probe, the moisture potential and temperature were measured in regular intervals (Fig 2). By means of the resulting diagram it is possible to determine all heat- and moisture coefficients from the previously derived equation in the course of a single experiment. The results of investigations performed on two different types of peat (pretreated and not pre-treated) are diagrammatically represented in figures 2 and 3. There are 3 figures and 11 references, 8 of which are Soviet.

ASSOCIATION: Torfyanoy institut, g. Moskva
(Peat Institute, City of Moscow)

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SOV/69-21-3-2/25

5(4)

AUTHORS: Volarovich, M.P., Gamayunov, N.I., Starikova, Z.A., Churayev, N.V.

TITLE: A Study of the Aquatic Properties and the Structure of Peat With the Aid of Radioactive Isotopes - 2. Changes in the Aquatic and Structural Properties of Peat, when Dispersed or Pressed

PERIODICAL: Kolloidnyy zhurnal, 1959, Vol XXI, Nr 3, pp 257-262 (USSR)

ABSTRACT: The authors describe an experiment carried out with the aid of a radiotracer (Na_2SO_4 with isotope S^{35}) to determine the change in the aquatic properties and the structure of samples of dispersed and compressed peat of different processing stages. The used methods allowed measuring of the total water content of the samples, i.e. the measurings included the water within the cellular cavities of the plant residues, which constitute a considerable part of the peat. It was

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A Study of the Aquatic Properties and the Structure of Peat With the Aid of Radioactive Isotopes - 2 Change in the Aquatic and Structural Properties of Peat, when Dispersed or Pressed

observed that dispersing and compressing of the samples resulted in a diminution of their water content, due to the partial liberation of intracellular water and its passing into the free liquid. This was accompanied by destruction and deformation of the plant residues, which in its turn caused an increase in the active porosity of the peat, particularly in its disperse phase. It was further observed, that during dispersion and compression the kinetic specific surface of the peat considerably increases, whereas the diameter of the pores which determine the internal water transport, is reduced. The pressure needed to make a great part of intercellular liquid pass into free water does not exceed 1 kg/cm^2. It results therefrom, that this kind of water linkage in peat is energetically very weak. The methods developed by the authors permit their being used also for technological processes, which are con-

SOV/69-21-3-2/25

A Study of the Aquatic Properties and the Structure of Peat With the Aid of Radioactive Isotopes-2.Change in the Aquatic and Structural Properties of Peat, when Dispersed or Pressed

nected with the change in aquatic properties and the structure of peat. The following Soviet scientists (all covered by references) are mentioned in the article: A.A. Berezin, I.D. Belovidov, I.M. Litvinov and M.G. Bulynko. There are 3 graphs, 2 tables and 17 Soviet references.

ASSOCIATION: Moskovskiy torfyanoy institut, Kafedra fiziki (Moscow Peat Institute, Chair of Physics)

SUBMITTED: 19 June 1958

Card 3/3

CAMAYCHAN, M. I., Cand Ag Sci — (diss) "Investigation of the thermal heat and moisture exchange in peat," Moscow, 1960, 18 pp, 200 cop (Kalinin Peat Institute) (KL, 43-60, 118)

80282
S/170/60/003/04/02/027
B007/B102

5.1230

AUTHOR: Gamayunov, N.I.

TITLE: Investigation of the Transfer of Heat and Moisture in a Limited Bar

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, 1960, Vol. 3, No. 4, pp. 11-17

TEXT: The heat and moisture transfer in samples of a moist dispersed material in the shape of a limited, heat- and moisture-insulated bar is expressed by a system of differential equations (Refs. 1,2): Formulas (1), (2) and (3). The bar is constantly heated on the front face and cooled by air convection. On the other front face it contacts a non-hygroscopic half-limited standard. The exact solutions of the formulas (1) and (3) are obtained: Formulas (15) and (26). On this occasion, the criteria of Kirpichev, Posnov and Lykov are used. Approximation formulas (27) and (28) are obtained for a longer duration of the experiment. These formulas show that in the case of sufficiently long experiments the temperature distribution along the bar is represented by a straight line and the moisture by a second-order curve. The maximum of the latter may be determined from formula (29). The experiments were carried out in the device shown in

Investigation of the Transfer of Heat and Moisture in a Limited Bar

Fig. 1. A similar system has already earlier been suggested by N.N. Bab'yev (Ref. 6). Dispersed lowland peat was used in the experiments. This peat was mixed into a solution of radioactive $Na_2S^*O_4$ salt which is not adsorbed by the solid peat phase (Ref. 7). Fig. 2 shows the curves of the distribution of moisture and of the relative activity for the peat samples at various initial moisture. The activity curves show that transfer of moisture in a closed moisture-insulated sample is a complicated process. The experiments proved that a moisture circulation acts in a moisture-insulated sample. An attempt is made to explain this process. The present experiments and those made by other authors with samples of various length and at various heating periods are indicative of the fact that transfer of moisture in form of steam plays an essential part in heat transfer (particularly in samples of low moisture). This has been observed in all experiments within the temperature range of 30-60° C. The experiments confirmed the presence of moisture currents (connected with the temperature gradient) towards the "cold" as well as towards the "hot" front face of the sample. The supposition of the papers mentioned in Refs. 6 and 8 concerning linearity of moisture distribution along the sample in the quasi-steady state did not prove true in the experiments made here. The formulas given in the paper (Formula 6) cannot (as is shown by analytical and experimental investigations)

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Investigation of the Transfer of Heat and Moisture in a Limited Bar

be used as a base for calculating the coefficients of heat and moisture transfer. The work described was performed under the supervision of M.P. Volarovich and N.V. Churayev. There are 4 figures, 1 table, and 9 Soviet references.

ASSOCIATION: Kalininskiy torfyanoy institut, g. Moskva (Kalinin Peat Institute, City of Moscow)

Card 3/3

GAMAYUNOV, N.I.

Criteria of nonisothermic transfer. Inzh.-fiz. zhur. no.12:58-62 D '60. (MIRA 14:3)

1. Kaininskiy torfyanoy institut, go. Moskva.
(Heat--Transmission)

VOLAROVICH, M.P.; GAMAYUNOV, N.I.; CHURAYEV, N.V.

Study of thermomoisture conductivity in peat. Koll. zhur. 22 no. 5:535-542 S-O '60. (MIRA 13:10)

1. Kalininskiy torfyanoy institut.
(Peat)

GAMAYUNOV, N. I., VOLAROVICH, M. P., and CHURAYEV, N. V.

"Investigation of Heat and Mass Transfer in Peat by Radioactive Indicators."

Report submitted for the Conference on Heat and Mass Transfer, Minsk, BSSR, June 1961.

GAMAYUNOV, N. I.

"New Method of Complex Determination of Heat and Mass Transfer Coefficient and the Criterium of Phase Conversions."

Report submitted for the Conference on Heat and Mass Transfer, Minsk, BSSR, June 1961.

BROMBERG, Viktor Aleksandrovich; GAMAYUNOV, Nikolay Ivanovich; ZVORYKIN, Aleksey Dmitriyevich; KUDRYAVTSEV, Vitaliy Vasil'yevich; TEVEROVSKIY, Yevgeniy Ivanovich; EPSHTEYN, Lev Abramovich; SHIROKOVA, M.M., tekhn. red.

[Mechanization of the manufacture of electrical insulating materials of winding insulation, and drying as well as saturating operations] Mekhanizatsiia proizvodstva elektroizoliatsionnykh materialov, izoliatsionno-obmotochnykh i sushil'no-propitochnykh rabot. By V.A.Bromberg i dr. Moskva, Gos. energ.izd-vo, 1961. 99 p. (MIRA 15:2)
(Electric insulators and insulation)

23754

S/170/61/004/006/010/015
B129/B212

10.9020

AUTHORS: Churayev, N. V., Gamayunov, N. I.

TITLE: Study of the structure of porous media by radioactive indicators

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 4, no. 6, 1961, 106-111

TEXT: Exact and approximate solutions of the differential equations for convective diffusion, which describe the filtration of pure water through pores, are obtained by the authors. A radioactive indicator is added to the water. The theoretical results are compared with the experimental ones. For the study of moisture transfer in disperse materials it is very important to obtain their structural characteristics. It has been suggested to picture the motion of the liquid in porous materials like the process of convective diffusion. The structure of the materials is characterized by the size of the convective diffusion coefficients; it is assumed that diffusion takes place because of the difference in dimensions and the arrangement of the pores. The experimental analysis of convective

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B129/B212

Study of the structure of...

diffusion in porous materials can be done with radioactive indicators. The water is filtrated through the test material under constant pressure. A radioactive indicator solution (Na_2SO_4 with S^{35}, NaI with I^{131} etc) is poured on top of the water. Single small samples are taken from the filtrate. The concentration of the indicator is determined by radiometric methods. Exact approximate solutions of the differential equation for the convective diffusion are obtained. Experiments with the filtration of a solution of a radioactive indicator show that only for isotropic materials the experimental data will agree with the theoretical ones. The structure of isotropic materials (for example, sand with a grain size of 0.1-0.25 mm) can be characterized by the convective diffusion coefficient and the average dimensions of the pores. The size distribution of the pores corresponds to the Gaussian distribution. For non-isotropic materials (e.g. peat) the equation of convective diffusion is not applicable since the size distribution of the pores is not Gaussian. There are 2 figures and 7 references: 6 Soviet-bloc and 1 non-Soviet-bloc.

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23754

S/170/61/004/006/010/015

Study of the structure of... B129/B212

ASSOCIATION: Kalininskiy torfyanoy institut, Moskva (Kalinin Peat Institute of Moscow)

SUBMITTED: August 5, 1960

Card 3/3

GANAYEV, N.I.; [illegible], V.S.

Determining the water permeability of soils in field conditions. Inzh.-fiz. zhur. 4 no.10:71-77 O '61. (MIRA 14:10)

1. Torfyanoy institut, Kalinin.
(Soil percolation)

NEKHAY, Stepan Matveyevich; NOVAK, Vadim Mikhaylovich; KHABAROV, Valentin Ivanovich; GAMAYUNOV, N.I., red.; LADIONOV, G.Ye., tekhn. red.

[Pressing machines used in the manufacture of electrical insulating materials]Pressy dlia proizvodstva elektroizoliatsionnykh materialov. Moskva, Gosenergoizdat, 1962. 94 p. (MIRA 15:9)

(Electric insulators and insulation)
(Electric equipment industry--Equipment and supplies)
(Power presses)

33474
S/170/62/005/002/006/009
B104/B138

24.5200

AUTHOR: Gamayunov, N. I.

TITLE: Some problems of heat and mass transfer

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 5, no. 2, 1962, 79 - 89

TEXT: The system

$$\frac{\partial t(\zeta, \tau)}{\partial \tau} = a\nabla^2 t(\zeta, \tau) + \frac{\varepsilon\rho c_m}{c}\frac{\partial \theta(\zeta, \tau)}{\partial \tau}, \quad (1)$$

$$\frac{\partial \theta(\zeta, \tau)}{\partial \tau} = a_m \nabla^2 \theta(\zeta, \tau) + a_m \delta \nabla^2 t(\zeta, \tau)^*, \quad (2)$$

where $\nabla^2 = \frac{\partial}{\partial \zeta} + \frac{m-1}{\zeta}\frac{\partial}{\partial \zeta}$.

for internal heat and mass is solved with boundary conditions of the second kind:

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Some problems of heat ...

$$-\lambda \frac{\partial t(R,\tau)}{\partial \zeta} + q(\tau) - (1-\varepsilon)\rho q_m(\tau) = 0. \quad (3)$$

$$\lambda_m \frac{\partial \theta(R,\tau)}{\partial \zeta} + \lambda_m \delta \frac{\partial t(R,\tau)}{\partial \zeta} + q_m(\tau) = 0, \quad (4)$$

$$\frac{\partial t(0,\tau)}{\partial \zeta} = \frac{\partial \theta(0,\tau)}{\partial \zeta} = 0, \quad (5)$$

$$t(0,\tau) < \infty,\ \theta(0,\tau) < \infty, \quad (6),$$

$$t(\zeta,0) = f_1(\zeta),\ \theta(\zeta,0) = f_2(\zeta),$$

where δ is Soret's coefficient of a wet body, $q(\tau)$ and $q_m(\tau)$ are arbitrary boundary functions of heat and liquid flows, which satisfy Dirichlet's conditions; $\zeta = x$, $m = 1$ for plates, $\zeta = r$, $m = 2$ for cylinders, and $\zeta = r$, $m = 3$ for spheres. Eqs. (1) - (2) and the boundary conditions are transformed with the aid of the substitutions $t = u + v$, $\theta = u + v$ and solved by using Fourier or Hankel transformations:

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$$v = \frac{m}{R^m}\int_0^R f_1(\zeta)\zeta^{m-1}d\zeta - \qquad (25),$$

$$-\frac{1}{\nu_1^2-\nu_2^2}\left\{\sum_{n=1}^{\infty}A_2\exp\left(-\mu_n^2\frac{\mathrm{Fo}}{\nu_1^2}\right)-\sum_{n=1}^{\infty}A_1\exp\left(-\mu_n^2\frac{\mathrm{Fo}}{\nu_2^2}\right)\right\},$$

$$x = \frac{m}{R^m}\int_0^R f_2(\zeta)\zeta^{m-1}d\zeta - \qquad (26),$$

$$-\frac{1}{\nu_1^2-\nu_2^2}\left\{\sum_{n=1}^{\infty}B_2\exp\left(-\mu_n^2\frac{\mathrm{Fo}}{\nu_1^2}\right)-\sum_{n=1}^{\infty}B_1\exp\left(-\mu_n^2\frac{\mathrm{Fo}}{\nu_2^2}\right)\right\}.$$

$$u(\zeta, \tau) = m \frac{a}{R}\left[\frac{1}{\lambda}\int_0^\tau q(\vartheta)\,d\vartheta - \text{Lu Ko Pn}\,\frac{1}{\lambda_m}\int_0^\tau q_m(\vartheta)\,d\vartheta\right] + \tag{36}$$

$$+\frac{2a}{R^2}\sum_{n=1}^{\infty} C\int_0^\tau\left\{P_1(\vartheta)\exp\left[-\mu_n^2\frac{a(\tau-\vartheta)}{\nu_1^2R^2}\right] - P_2(\vartheta)\exp\left[-\mu_n^2\frac{a(\tau-\vartheta)}{\nu_2^2R^2}\right]\right\}d\vartheta,$$

$$\sigma(\zeta, \tau) = -\frac{a_m}{\lambda_m R}\int_0^\tau q_m(\vartheta)\,d\vartheta + \tag{37}$$

$$+\frac{2a}{R^2}\sum_{n=1}^{\infty} C\int_0^\tau\left\{Q_1(\vartheta)\exp\left[-\mu_n^2\frac{a(\tau-\vartheta)}{\nu_1^2R^2}\right] - Q_2(\vartheta)\exp\left[-\mu_n^2\frac{a(\tau-\vartheta)}{\nu_2^2R^2}\right]\right\}d\vartheta,$$

33474
S/170/62/005/002/006/009
Some problems of heat ... B104/B138

The coefficients contained therein are listed in tables. These general solutions are discussed and a number of particular solutions are presented for cases where the boundary functions of heat and mass transport are given in the form of polynomials, exponential and sine functions. There are 2 tables and 5 references: 4 Soviet and 1 non-Soviet.

ASSOCIATION: Kalininskiy torfyanoy institut, g. Moskva (Kalinin Peat Institute, Moscow)

SUBMITTED: May 29, 1961

Card 5/8

42079

S/170/62/005/011/004/008
B104/B102

5.4220

AUTHOR: Gamayunov, N. I.

TITLE: Some problems of heat and mass transfer

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 5, no. 11, 1962, 74 - 86

TEXT: For heat and mass tranfer in a bounded body, general solutions are derived from

$$\frac{\partial t(\xi,\tau)}{\partial\tau}=a\nabla^2 t(\xi,\tau)+\frac{\varepsilon\rho c_m}{c}\frac{\partial\theta(\xi,\tau)}{\partial\tau}, \qquad (1)$$

$$\frac{\partial\theta(\xi,\tau)}{\partial\tau}=a_m\nabla^2\theta(\xi,\tau)+a_m\delta\nabla^2 t(\xi,\tau), \qquad (2)$$

$$\nabla^2=\frac{\partial}{\partial\xi}+\frac{m-1}{\xi}\frac{\partial}{\partial\xi}.$$

and particular solutions are obtained for a plate, a cylinder ani a sphere. This system is solved under generalized boundary conditions of the third kind

Card 1/4

Some problems of heat ...

$$-\lambda\frac{\partial t(R,\tau)}{\partial\xi}+\alpha\left[t_c(\tau)-t(R,\tau)\right]-(1-\varepsilon)\,p\sigma_m\left[\theta(R,\tau)-\theta_c(\tau)\right]=0 \qquad (3)$$

$$\lambda_m\frac{\partial\theta(R,\tau)}{\partial\xi}+\lambda_m\delta\frac{\partial t(R,\tau)}{\partial\xi}+\alpha_m\left[\theta(R,\tau)-\theta_c(\tau)\right]=0\,; \qquad (4),$$

under the symmetry conditions $\frac{\partial t(0,\tau)}{\partial\xi}=\frac{\partial\theta(0,\tau)}{\partial\xi}=0$ (5), and under the initial conditions $t(\xi,0)=f_1(\xi),\ \theta(\xi,0)=f_2(\xi)$. (6). As in a previous paper (N. I. Gamayunov, IFZh, no. 2, 1962) two systems of the form (1)-(2) are obtained by the substitution $t = v + u$, $\theta = \omega + \sigma$. In the first system v and ω must satisfy the conditions (5)-(6) and $v(R,\tau) = \omega(R,\tau) = 0$; in the second system u and σ must satisfy the conditions (3)-(5) and $u(\xi,0) = \sigma(\xi,0) = 0$. The solution

$$v=\frac{1}{\nu_2^2-\nu_1^2}\left\{\sum_{\mu_n=1}^{\infty}A_2\exp\left(-\mu_n^2\nu_2^2\mathrm{Fo}_m\right)-\sum_{\mu_n=1}^{\infty}A_1\exp\left(-\mu_n^2\nu_1^2\mathrm{Fo}_m\right)\right\}, \qquad 10)$$

Card 2/4

$$\omega = \frac{1}{\nu_2^2 - \nu_1^2}\left\{\sum_{\mu_n=1}^{\infty} B_2 \exp\left(-\mu_n^2 \nu_2^2 \mathrm{Fo}_m\right) - \sum_{\mu_n=1}^{\infty} B_1 \exp\left(-\mu_n^2 \nu_1^2 \mathrm{Fo}_m\right)\right\}, \quad (11)$$

to the first system is obtained easily by Laplace, Fourier or Hankel transformations or by other methods. The solution

$$u = 2\sum_{n=1}^{\infty}\left\{(P_{n2}L_{n1} - P_{n1}L_{n2})\frac{\mu_n}{\psi_n}\frac{a}{R^2}\int_0^{\tau} t_c(\vartheta)\exp\left[-\mu_n^2\frac{a}{R^2}(\tau-\vartheta)\right]d\vartheta - \right.$$

$$\left. - \frac{\mathrm{Fe}}{\delta}(S_{n2}L_{n1} - S_{n1}L_{n2})\frac{\mu_n}{\psi_n}\frac{a}{R^2}\int_0^{\tau}\theta_c(\vartheta)\exp\left[-\mu_n^2\frac{a}{R^2}(\tau-\vartheta)\right]d\vartheta\right\}, \quad (12)$$

$$z = 2\sum_{n=1}^{\infty}\left\{(P_{n2}^{*}L_{n1} - P_{n1}^{*}L_{n2})\frac{\mu_n}{\psi_n}\frac{\delta}{\mathrm{Fe}}\frac{a}{R^2}\int_0^{\tau} t_c(\vartheta)\times\right.$$

Card 3/4 $\left.\times\exp\left[-\mu_n^2\frac{a}{R^2}(\tau-\vartheta)\right]d\vartheta - \frac{\mathrm{Fe}}{\delta}(S_{n2}^{*}L_{n1} - S_{n1}^{*}L_{n2})\frac{\mu_n}{\psi_n}\frac{a}{R^2}\times\right.$

$$\times \int_0^{\tau} \theta_c(\vartheta) \exp\left[-\mu_n^2 \frac{a}{R^2}(\tau - \vartheta)\right] d\vartheta \Bigg|. \qquad (13)$$

to the second system is obtained by a Laplace integral transformation. The general solution of system (1) is a sum of the solutions (10) and (12); that of system (2) is a sum of the solutions (11) and (13). Special solutions are discussed for the case that temperature and potential of the external medium are given by $t_c = t_{0c} e^{-\alpha_1 \tau} \cos(\omega_1 \tau + \varphi_1)$, $\theta_c = \theta_{0c} e^{-\alpha_2 \tau} \cos(\omega_2 \tau + \varphi_2)$. (14), that temperature and potential of the medium change exponentially, and that the boundary conditions are given by

$$t_c(\tau) = \alpha_0 + \alpha_1 \tau + \alpha_2 \tau^2 + \ldots + \alpha_h \tau^h = \sum_{m=0}^{h} \alpha_m \tau^m, \qquad (17)$$

$$\theta_c(\tau) = \beta_0 + \beta_1 \tau + \beta_2 \tau^2 + \ldots + \beta_l \tau^l = \sum_{m=0}^{l} \beta_m \tau^m.$$

There are 6 tables.

ASSOCIATION: Torfyanoy institut, g. Kalinin (Peat Institute, Kalinin)

SUBMITTED: January 3, 1962

GAMAYUNOV, N. I.

A new method for complex determination of the coefficients of heat transfer and mass transfer and of the criterion of phase transformation. Teplo- i massoper. 1:86-93 '62.
(MIRA 16:1)

1. Kalininskiy torfyanoy institut.

(Peat—Thermal properties) (Peat—Testing)

GAMAYUNOV, N.I. (Kalinin); SHERZHUKOV, B.S. (Kalinin)

Reduction of piezometeic pressures in aquifers underlying soils to be drained. PMTF no.1:137-142 Ja-F '62. (MIRA 15:4)

1. Kalininskiy torfyanoy institut.
(Soil percolation) (Drainage)

VOLAROVICH, M.P., doktor fiziko-matematicheskikh nauk; GAMAYUNOV, N.I., kand. tekhn. nauk; CHURAYEV, N.V., kand. tekhn. nauk

Using radioactive indicators for studying the moisture characteristics, structure, and moisture movement in peat. Trudy VNIIGiM 38:97-115 '62. (MIRA 16:7)

1.Kalininskiy torfyanoy institut.
(Peat—Testing) (Radioactive tracers)

GAMAYUNOV, N.

Fifth All-Union Conference on the Colloid Chemistry. Torf. prom. 39 no.6:37-38 '62. (MIRA 16:7)

(Peat) (Chemistry, Physical and theoretical)

S/170/63/006/002/016/018
B108/B186

AUTHOR: Gamayunov, N. I.

TITLE: Heat and mass transfer in anisotropic bodies

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 6, no. 2, 1963, 118-121

TEXT: The equations of heat and mass exchange (A. V. Dykov. Teplo- i massoobmen v protsessakh sushki - Heat and mass exchange in drying processes - . Gosenergoizdat, 1956; A. V. Dykov, Yu. A. Mikhaylov. Teoriya perenosa energii i veshchestv - Theory of energy and mass transfer -. Izd. AN BSSR, 1959):

$$\frac{\partial t}{\partial \tau} = \sum_{i=1}^{3} C_i \frac{\partial^2 t}{\partial x_i^2} + \sum_{i=1}^{3} D_i \frac{\partial^2 \theta}{\partial x_i^2}, \qquad (1)$$

$$\frac{\partial \theta}{\partial \tau} = \sum_{i=1}^{3} C_i^* \frac{\partial^2 t}{\partial x_i^2} + \sum_{i=1}^{3} D_i^* \frac{\partial^2 \theta}{\partial x_i^2}, \qquad (2)$$

with $C_i = a_i + \frac{\rho\varepsilon\delta_i a_{mi}}{c}$; $D_i = \frac{\varepsilon\rho a_{mi}c_m}{c}$; $C_i^* = \frac{\delta_i a_{mi}}{c_m\gamma}$; $D_i^* = a_{mi}$.

Card 1/3

Heat and mass transfer in ...

for anisotropic, porous, colloidal bodies are solved for a parallelepiped ($2l_1$ by $2l_2$ by $2l_3$) with the boundary conditions

$$t(x_1, x_2, x_3, 0) = f_1(x_1, x_2, x_3),\ \theta(x_1, x_2, x_3, 0) = f_2(x_1, x_2, x_3), \quad (3)$$

$$t(l_i, \tau) = \varphi_i(\tau),\ \theta(l_i, \tau) = \psi_i(\tau) \quad (4)$$

and the symmetry conditions

$$\frac{\partial t(0, \tau)}{\partial x_i} = 0, \quad \frac{\partial \theta(0, \tau)}{\partial x_i} = 0. \quad (5)$$

The characteristic equations are found by subjecting the above equations and conditions to an integral Laplace transformation with respect to time, and to a finite Laplace transformation or to a Fourier cosine transformation (A. I. Sneddon. Fourier transformations, 1955) with respect to the three coordinates x_i.

ASSOCIATION: Kalininskiy torfyanoy institut, g.Moskva (Kalinin Institute of Peat, Moscow)

Heat and mass transfer in ...

S/170/63/006/002/016/018
B108/B186

SUBMITTED: May 12, 1962

Card 3/3

NAUMOVICH, V.M.; GAMAYUNOV, N.I.; TSEPLYAYEV, O.A.

Hot pressing of peat under vacuum. Inzh.-fiz. zhur. no.12: 107-110 D '63. (MIRA 17:2)

1. Torfyanoy institut, Kalinin.

[redacted], A.I.; [redacted], A.A.; [redacted], L.V.

Studying the water and heat regime of the upper layers of a peat bog. Trudy mal. sorf. inst. no.3:[illegible].
(MIRA 17:12)

VOLAROVICH, M.P.; GAMAYUNOV, N.I.; DAVIDOVSKIY, P.N.

Study of the diffusion process in a porous medium (peat) by the radioactive-tracer technique. Koll.zhur. 26 no.1:139-140 Ja-F '64. (MIRA 17:4)

1. Kalininskiy torfyanoy institut i Institut torfa, Minsk.

GAMAYUNOV, N.I.

Heat and mass transfer in anisotropic bodies. Inzh.-fiz. zhur. 7 no.8:43-46 Ag '64. (MIRA 17:10)

1. Torfyanoy institut, g. Kalinin.

GAMAYUNOV, N. I.

"Solution of transfer equations by matrices."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12 May 1964.

Kalinin Peat Inst.

GAMAYUNOV, N. I.; LISHTVAN, I. I.; CHURAYEV, N. V.

"Processes of structural change with heat and mass transfer in colloidal capillary-porous bodies."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12 May 1964.

Kalinin Peat Inst

[illegible] the calculation of the hydrogeological parameters of water-bearing layers when sampling them without a test hole. Izv. vys. ucheb. zav.; geol. i razv. 7 no.5:145-152 My '64. (MIRA 19:2)

1 Kaliningradskiy [illegible].

DOLINSKAYA, E.S.; GAMAYUNOV, N.I.; BERKOVICH, T.M.

Using radioisotopes for examining the thermal gradient transfer of moisture in the "raw" asbestos cement. Trudy NIIAsbesttsementa no.19:80-95 '65. (MIRA 18:9)

VOLAROVICH, M.P.; GAMAYUNOV, N.I.; DAVIDOVSKIY, P.N.

Gamma-spectroscopic kinetic study of the heat and moisture conductivity of disperse materials. Koll. zhur. 27 no.1:3-7 Ja-F '65. (MIRA 18:3)

1. Kalininskiy torfyanoy institut i Vsesoyuznyy nauchno-issledovatel'skiy institut torfa, Monsk.

VOLAROVICH, M.I.; PAVLOVSKIY, P.N.; SAMAYUNOV, N.I.

Effect of the moisture content and structure on the mechanism of heat and moisture transfer in peat. Koll. zhur. 27 no.2: 167-171 Mr-Ap '65. (MIRA 18:6)

1. Kalininskiy torfyanoy institut i Vsesoyuznyy nauchno-issledovatel'skiy institut torfa, Minsk.

GAMAYUNOV, N.I.

First All-Union Conference on Peat Physics and Physical Chemistry.
Koll.zhur. 27 no.3:476-477 My-Je '65.
(MIRA 18:12)

VOLKOVICH, M.I., CHAYKUNOV, N.I., POLYAKOVA, A.A., [illegible]

Radioactive tracer study of the mechanism of drying of disperse materials in the process of moisture exchange with the underlying soil. Koll. zhur. 27 no.4:505-509 Jl-Ag '65. (MIRA 18:12)

1. Kalininskiy torfyanoy institut. Submitted February 20, 1964.

L 34086-66

ACC NR: AP6025521 SOURCE CODE: UR/0069/66/028/002/0191/0197

AUTHOR: Bulychev, V. G.; Gamayunov, N. I.; Tseplyayev, O. A.

ORG: Kalinin Polytechnic Institute (Kalininskiy politekhnicheskiy institut)

TITLE: Role of air in the pressing of hydrophilic powdered fuel

SOURCE: Kolloidnyy zhurnal, v. 28, no. 2, 1966, 191-197

TOPIC TAGS: solid fuel, vacuum technique, adsorption, air, pressure effect

ABSTRACT: Two successive processes develop in the vacuum pressing of peat dessicate -- strengthening of briquettes through decreased adsorption of air as the vacuum becomes higher, and drop in briquette strength due to entry of atmospheric air into the vacuum press mold. The optimal vacuum is determined by these processes and is due to intensity of strengthening and sorptional decrease in strength, which for their part depend on the briquette material and pressing conditions. Consequently, the optimal vacuum depends on the same factors as does the mechanical strength of briquettes. Air sorbed on solid and quasi-solid peat components is a deleterious agent in briquetting and must be eliminated. Achieving a vacuum of the order of $4 \cdot 10^{-4}$ normal atmosphere/meter^2 in the pressing chamber results in up to 60% increase in mechanical strength of briquettes. When there is equal strength in vacuumed and ordinary briquettes, pressure can be reduced by approximately one-half or the pressing time can be cut down to one-fifth one-eighth. Orig. art. has: 5 figures. [JPRS: 35,998]

SUB CODE: 21, 13, 07 / SUBM DATE: 29Jan65 / ORIG REF: 035

Card 1/1 UDC: 541.182.6:552.577

GAMAYUNOV, R.G

Forthcoming valuation of fixed assets and working out new schedules for amortization deductions. Mor. flot 19 no.2:18-19 F '59.
(MIRA 12:3)

1.Nachal'nik sektor TSentral'nogo proyektno-konstruktorskogo byuro No.2.
(Merchant marine--Finance)

NOVIKOV, T.N.; YEL'TSOV, S.P., red.; GAMAYUNOV, R.G., red.; YAKOVLEVA, V.I., red.izd-va; TIKHONOVA, Ye.A., tekhn.red.

[Collections of laws and regulations governing safety and industrial sanitation for the merchant marine] Sbornik pravil i polozhenii po tekhnike bezopasnosti i promyshlennoi sanitarii na morskom flote. Sostavil T.N.Novikov. Moskva, Izd-vo "Morskoi transport," 1957. 620 p. (MIRA 11:5)

1. Russia (1923- U.S.S.R.) Ministerstvo morskogo flota. (Ships--Safety measures) (Ships--Sanitation)

: USSR
: Forestry. Forest Cultures.

: Tr. Inst.-Biologiya, No. 5, 1959, Nr. 20156

AUTHOR : Fortunatov, V.; Sadasheva, G.; Gemayunov, V.; *
INST. : Ufimsk Leskhoz
TITLE : An Experiment Made by Ufimsk Leskhoz for Afforestation of Mountain Slopes.

ORIG. PUB.: S. kh. Bashkirii, 1957, No.11, 29-31

ABSTRACT : The mountains of Ufimsk Leskhoz were formerly covered with a broadleaf wood containing a large participation of oak. On soils overlying marls and limestones, containing a humus layer up to 10-50 cm deep, one began in 1950 to plant forest cultures using various mixtures on the deforested slopes. The main species used were pine, larch, oak, spruce, ash and poplar. It is pointed out that when the root collars were implanted 4-6 cm deeper the plan

* Maybyrin, M.

CARD : 1/2

CATEGORY :

ABS. JOUR : Ref Zhur -Biologiya, No. 5, 1959, No. 20168

AUTHOR :
INST. :
TITLE :

ORIG. PUB.:

ABSTRACT : tings survived better. On southern mountain slopes with concavities up to 60° in steepness, terracing was performed. It was found that when pine was mixed with ash, birch and acacia in pure rows it grew better than when in the same mixture with ash and acacia. Larch grew quite successfully in mixture with pure rows of ash, linden and acacia. Satisfactory results were gotten upon planting oak in admixture with ash, elm and acacia. --G.G. Abramashvili

CARD: 2/2

L 47447-66 EWT(1)

ACC NR: AT6014613 SOURCE CODE: UR/3203/64/000/227/0149/0154

AUTHOR: Gamayunov, V. I. (Engineer)

ORG: none

TITLE: Dc converter with power amplifier

SOURCE: Leningrad. Institut inzhenerov zheleznodorozhnogo transporta. Sbornik trudov, no. 227, 1964. Elektrosnabzheniye elektricheskikh zheleznykh dorog (Power supply for electric railroads), 149-154

TOPIC TAGS: direct current, electronic transformer, power amplifier, transistorized circuit

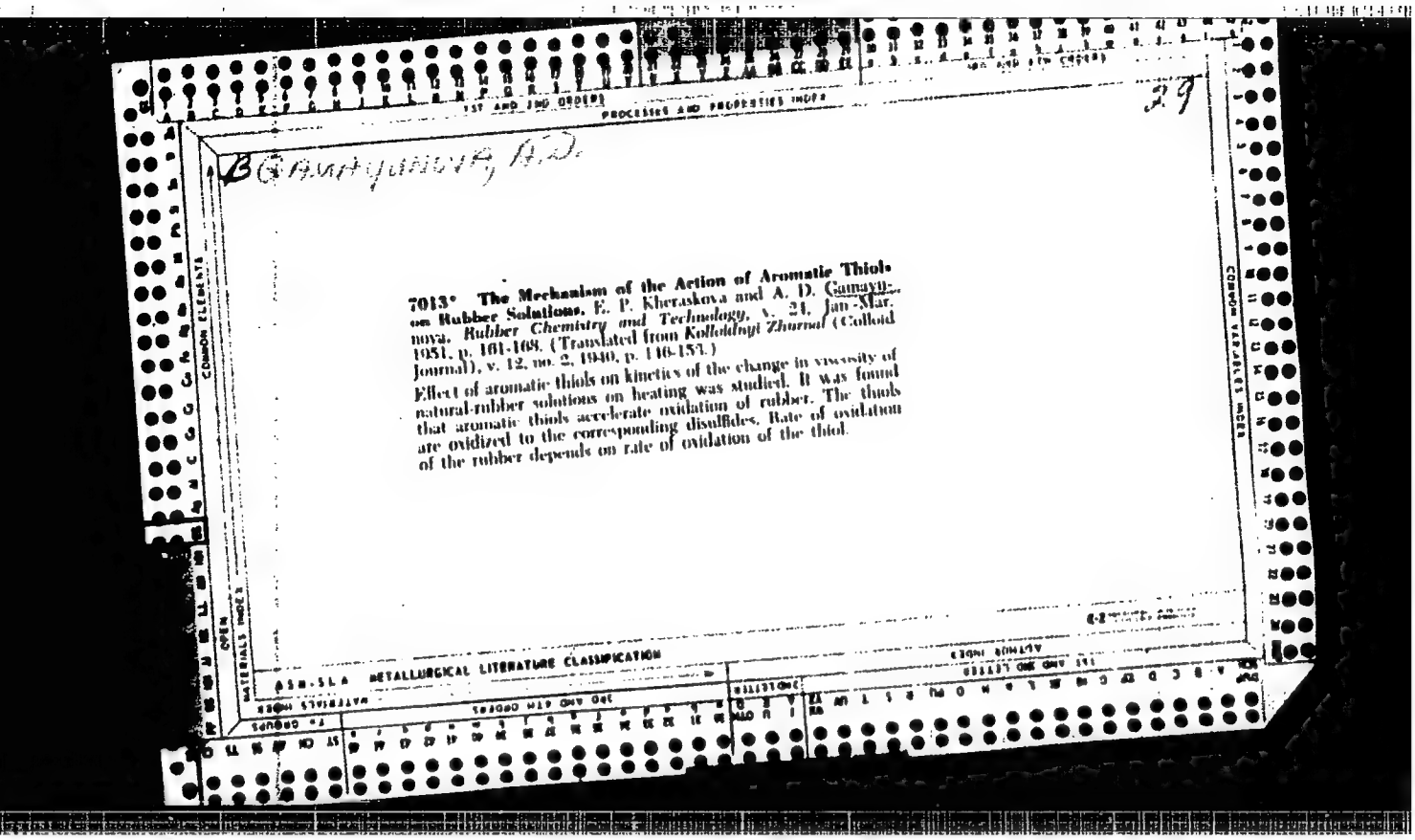
ABSTRACT: A dc converter with a power amplifier is described from the point of view of its application to traction substations. A schematic of the device is given, which consists of a push-pull converter (autogenerator) circuit, a transformer, the amplifier input circuit, an output transformer, a rectifier circuit, and a ripple filter. Calculations are given for the power amplifier transformer and the power transistors. An experimental model of the device was built and tested at the laboratory of "Electrical Equipment for Electric Railroads" department of LIIZhT (Kafedra "Elektrosnabzheniye elektricheskikh zheleznykh dorog" LIIZhT). With a supply voltage of 12 v and an output voltage of 110 v the device delivers 440 wt continuous power. In the pulsed mode an output current of 25--30 a can be obtained. Orig. art. has: 16 equations and 3 figures.

Card 1/1 SUB CODE: 09/ SUBM DATE: none/ ORIG REF: 003 mis

GAMAYUNOV, V.I., inzh.

Distance-type a.c. contact network detector protection.
[Trudy] LIIZHT no.193:236-243 '62. (MIRA 15:12)

1. Leningradskiy institut inzhenerov zheleznodorozhnogo transporta.
(Electric railroads—Wires and wiring)



7013* **The Mechanism of the Action of Aromatic Thiols on Rubber Solutions.** E. P. Kheraskova and A. D. Gamayunova. *Rubber Chemistry and Technology*, v. 24, Jan.-Mar. 1951, p. 161-169. (Translated from *Kolloidnyi Zhurnal* (Colloid Journal), v. 12, no. 2, 1940, p. 146-153.)

Effect of aromatic thiols on kinetics of the change in viscosity of natural-rubber solutions on heating was studied. It was found that aromatic thiols accelerate oxidation of rubber. The thiols are oxidized to the corresponding disulfides. Rate of oxidation of the rubber depends on rate of oxidation of the thiol.

GAMAYUNOVA, A.P.; NOVIKOVA, A.G.

Resistance to oil of the bonding with the 88-N adhesive.
Kauch. i rez. 22 no.12:36-39 D '63. (MIRA 17:9)

1. Nauchno-issledovatel'skiy institut rezinovoy promyshlennosti.

GAMAYUNOVA, A. P. Cand. Tech. Sci.

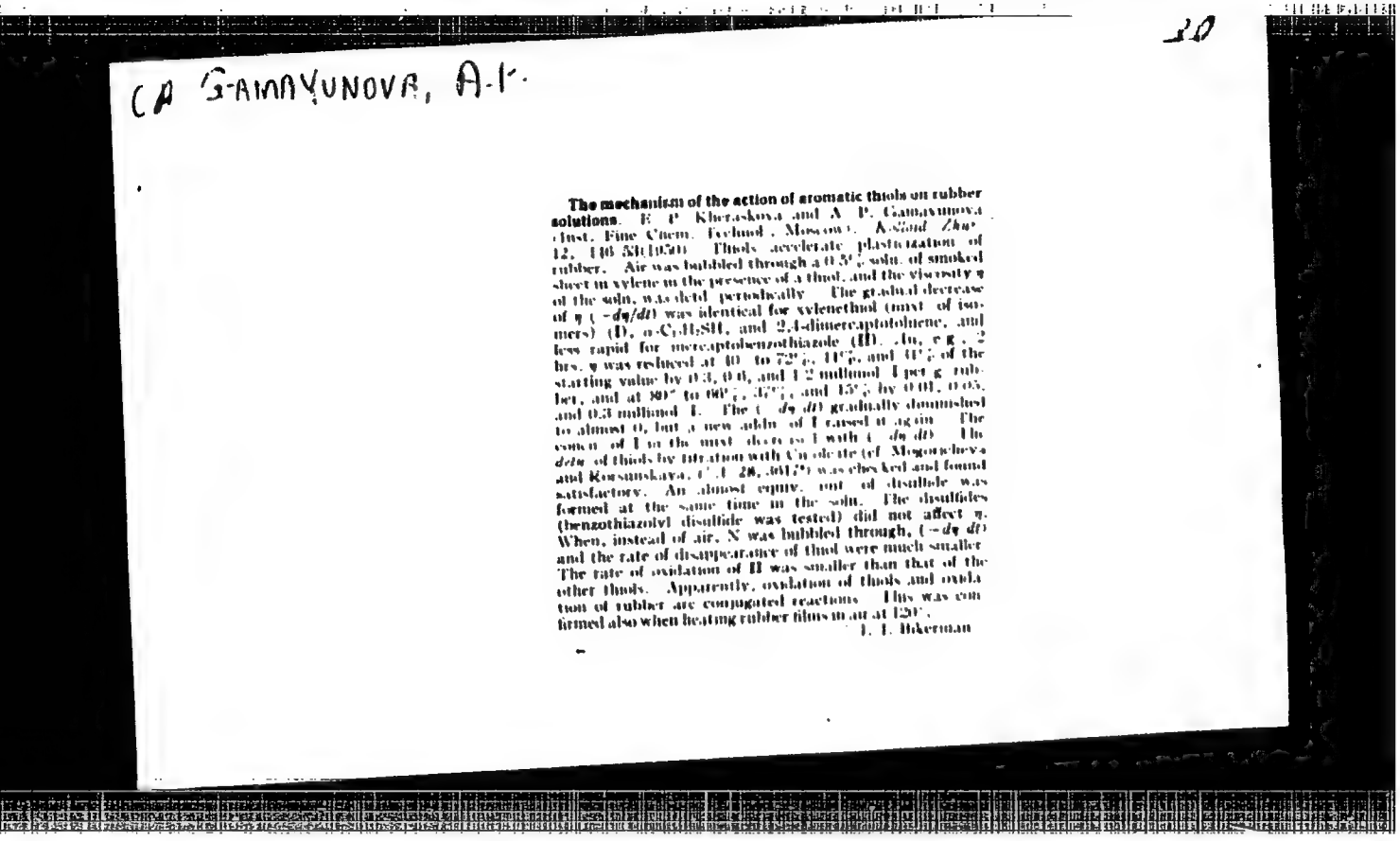
Dissertation: "Chemical Mastication of Natural Rubber with the Aid of Aromatic Mercaptans." Moscow Inst of Fine Chemical Technology imeni M.V. Lomonosov, 19 May 47.

SO: Vechernyaya Moskva, May, 1947 (Project #17836)

GANAZHANOVA, A.P.

Ganazhanova, A.P. "Soils and plants of the desert", Vestnik Akad. nauk Kazakh. SSR, 1948, No. 11, p. 87-89.

SO: U-3042, 11 March 53, (Letopis 'nykh Statey, No. 9, 1949)



CA GAMAYUNOVA, A.P.

30

The mechanism of the action of aromatic thiols on rubber solutions. E. P. Kheraskova and A. P. Gamayunova (Inst. Fine Chem. Technol., Moscow). *Kolloid Zhur.* 12, 146-50(1950). Thiols accelerate plastication of rubber. Air was bubbled through a 0.5% soln. of smoked sheet in xylene in the presence of a thiol, and the viscosity η of the soln. was detd. periodically. The gradual decrease of η ($-d\eta/dt$) was identical for xylenethiol (mixt. of isomers) (I), *o*-$C_6H_4(SH)_2$, and 2,4-dimercaptotoluene, and less rapid for mercaptobenzothiazole (II). After, e.g., 2 hrs. η was reduced at 40° to 72%, 11%, and 0% of the starting value by 0.3, 0.6, and 1.2 millimol I per g. rubber, and at 80° to 60%, 37%, and 15% by 0.01, 0.05, and 0.3 millimol I. The ($-d\eta/dt$) gradually diminished to almost 0, but a new addn. of I caused it again. The speed of I in the mist decreased with ($-d\eta/dt$). The *detn.* of thiols by titration with Cu oleate (cf. Mogonchevа and Rossinskaya, *C.A.* 28, 3617°) was checked and found satisfactory. An almost equiv. amt. of disulfide was formed at the same time in the soln. The disulfides (benzothiazolyl disulfide was tested) did not affect η. When, instead of air, N was bubbled through, ($-d\eta/dt$) and the rate of disappearance of thiol were much smaller. The rate of oxidation of II was smaller than that of the other thiols. Apparently, oxidation of thiols and oxidation of rubber are conjugated reactions. This was confirmed also when heating rubber films in air at 120°.

J. J. Bikerman

CA G.AMAYUNOVA, A.P.

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The mechanism of the action of aromatic thiols on rubber substance. K. P. Kherashkova and A. P. Gamayunova (Moscow Inst. Fine Chem. Technol.). *Rubber Chem. & Technol.* 24, 161–8(1951).—See *C.A.* 44, 6184*d*.
C. C. Davis

GAMAYUNOVA, A.P.; DOBROKHOTOVA, K.V.; KUZNETSOV, N.M. [deceased]; PAVLOV, N.V.; POLYAKOV, P.P.; SUVOROVA, R.I., redaktor; ALFEROVA, P.F., tekhnicheskiy redaktor

[Flora of Kazakhstan] Flora Kazakhstana. Glav. red. N.V.Pavlov. Sost. A.P.Gamaiunova, i dr. Alma-Ata. Vol.1. 1956. 352 p. (MLRA 9:8)

1. Akademiya nauk Kazakhskoy SSR. Alma-Ata. Institut botaniki.
2. Deystvitel'nyy chlen AN KazSSR (for Pavlov)
(Kazakhstan--Botany)

GAMAYUNOVA, A.P.

Some forage grasses in the flora of Kazakhstan. Izv. AN Kazakh. SSR. Ser.biol. no.11:66-82 '56. (MLRA 10:2)
(KAZAKHSTAN--GRASSES)

GAMAYUNOVA, A.P.

Biology of the wormwood Artemisia cina Berg. Trudy Bot.inst.
Ser.6 no.7:311-313 '59. (MIRA 13:4)

1. Institut botaniki AN KazSSR, Alma-Ata.
(Chayan District--Wormwood)

BAYTENOV, M.B.; BYKOV, B.A.; VASIL'YEVA, A.N.; GAMAYUNOVA, A.P.; GOLOSKOKOV, V.P., kand.biolog.nauk; DOBROKHOTOVA, K.V.; KORNILOVA, V.S.; FISYUN, V.V.; PAVLOV, N.V., akademik, glavnyy red.; KUBANSKAYA, Z.V., kand.biolog.nauk; SUVOROVA, R.I., red.; ALFEROVA, P.F., tekhn.red.

[Flora of Kazakhstan] Flora Kazakhstana. Glav.red. N.V.Pavlov. Sost.M.B.Baitenov i dr. Alma-Ata, Izd-vo Akad.nauk Kazakhskoi SSR. Vol.4. 1961. 545 p. (MIRA 14:4)

1. AN Kazakhskoy SSR (for Pavlov). 2. Chlen-korrespondent AN KazSSR (for Bykov).
(Kazakhstan--Botany)

BAYTENOV, M.S.; VASIL'YEVA, A.N.; GAMAYUNOVA, A.P.; GOLOSKOKOV, V.P.; ORAZOVA, A.; ROLDUGIN, I.I.; SEMIOTROCHEVA, N.L.; FISYUN, V.V.; TEREKHOVA, V.I.; PAVLOV, N.V., akademik, glav. red.; BYKOV, B.A., red.; GOLOSKOKOV, V.P., kand. biolog. nauk, red.; KUBANSKAYA, Z.V., kand. biolog. nauk, red.; SUVOROVA, R.I., red.; ALFEROVA, P.F., tekhn. red.

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1. AN Kazakhskoy SSR (for Pavlov). 2. Chlen-korrespondent AN Kazakhskoy SSR (for Bykov).
(Kazakhstan—Leguminosae)

VASIL'YEVA, A.N.; GAMAYUNOVA, A.P.; GOLOSKOKOV, V.P., kand. biol. nauk; ORAZOVA, A.; ROLDUGIN, I.I.; SEMIOTROCHEVA, N.L.; FISYUN, V.V.; MENZHULINA, N.A., red. ; ALFEROVA, P.F., tekhn. red.

[Illustrated guide to plants of the family Leguminosae of Kazakhstan] Illiustrirovannyi opredelitel' rastenii semeistva bobovykh Kazakhstana. Alma-Ata, Izd-vo Akad. nauk Kazakhskoi SSR, 1962. 357 p. (MIRA 15:6)

1. Akademiya nauk Kazakhskoy SSR, Alma-Ata. Institut botaniki.
(Kazakhstan—Leguminosae)

VASIL'YEVA, A.N.; GAMAYUNOVA, A.P.; GOLOSKOKOV, V.P., kand. biol. nauk; KARMYSHEVA, N.Kh.; KOROVIN, Ye.P.; OBRAZOVA, A.; ROLDUGIN, I.I.; SEMIOTROCHEVA, N.L.; FISYUN, V.V.; PAVLOV, N.V., akademik, glav. red.; SUVOROVA, R.I., red.; ALFEROVA, P.F., tekhn. red.

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1. Akademiya nauk Kazakhskoy SSR(for Pavlov).
(Kazakhstan--Botany)

VASIL'YEVA, A.N.; GAMAYUNOVA, A.P.; GOLOSKOKOV, V.P., kand. biol. nauk; DMITRIYEVA, A.A.; KARNYSHEVA, N.Kh.; KUBANSKAYA, Z.V., kand. biol. nauk; ORAZOVA, ".; PAVLOV, N.V., akademik; ROLDUGIN, I.I.; SEMIOTROVKHEVA, N.L.; TEREKHOVA, V.I.; FISYUN, V.V.; TSAGOLOVA, V.G.; SUVOROVA, A.I., red.; IVANOVA, E.I., red.; BYKOV,B.A., red.

[Flora of Kazakhstan] Flora Kazakhstana. Glav. red. N.V. Pavlov. Gost. A.N.Vasil'yeva i dr. Alma-Ata, Izd-vo AN Kazakh. SSR. Vol.7. 1964. 494 p. (MIRA 17:6)

1. Akademiya nauk Kaz.SSR (for Pavlov). 2. Chlen-korrespondent AN KazSSR (for Bykov).

VASIL'YEVA, A.N.; GAMAYUNOVA, A.P.; DMITRIYEVA, A.A.; GOLOSKOV, V.P., kand. biol. nauk; ZAYTSEVA, L.G.; KARMYSHEVA, N.Kh. ORAZOVA, A.; PAVLOV, N.V., akademik; ROLDUGIN, I.I.; SEMIOTROCHEVA, N.L.; TEREKHOVA, V.I.; FISYUN, V.V.; TSAGALOVA, V.G.; SUVOROVA, R.I., red.

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1. Akademiya nauk Kaz.SSR (for Pavlov).

OKANENKO, A.S.; BERSHTEYN, B.I.; POCHINOK, Kh.N.; GAMAYUNOVA, M.S.

Characteristics of biochemical processes occurring during "Gothic" degeneration of potatoes. Biokhim. pl. i ovoshch. no.4:164-182 '58. (MIRA 11:10)

1. Institut fiziologii rasteniy i agrokhimii AN USSR.
(Potatoes--Diseases and pests)

S/081/61/000/017/027/166
B102/B138

AUTHORS: Ostrovskaya, L. K., Yakovenko, G. M., Gamayunova, M. S.

TITLE: Complex inadequacy of microelements in lime soils

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 17, 1961, 106, abstract 17Г92 (Tr. Biogeokhim. labor. In-t geokhimii i analit. khimii AN SSSR, v. 11, 1960, 92 - 101)

TEXT: Excess quantities of lime in the soil not only reduce the mobility of Fe but also of many other microelements (Co, Mn, Zn, Cu, B). This is due to the increased pH value of these soils, to the adsorptive action of $CaCO_3$ particles and, probably, also to the effect of $CaCO_3$ on the solubility and stability of chelate compounds of these elements. In this kind of soil there is a distinct shortage of Fe and Cu accessible to plant life. This is, of course, due to the very high stability of the chelate type of organocomplexes of these elements. [Abstracter's note: Complete translation.]

Card 1/1

BORTSOVA, M.P.; GAMAYUNOVA, P.B.; POPLAVSKAYA, A.V.; SHPICHKO, N.P.; PAVLOV, G.D.; PODUNOVA, A.T.; LOVA, N.I.; ALEKSANDROVA, R.P.; ATARUKOV, A.G.; VOROB'YEVA, Ye.I.; GAN'YANTS, E.M.; GELLER, D.Ya.; PARSHINA, M.A.; FILINA, R.A.; CHUVELYAYEVA, Ye.S.

Selecting demulsifiers for crude oils processed in Groznyi refineries. Trudy GrozNII no.4:17-26 '59. (MIRA 12:9)

1.Groznenskiy neftyanoy nauchno-issledovatel'skiy institut (GrozNII) (for Pavlov, Podunova, Lova).
(Groznyi--Petroleum--Refining)

GAMAYURDV, A I

PA - 2373

AUTHOR: GAMAYUROV,A.I., NEYASOV,A.G.

TITLE: Fluxed Sinter with Increased Magnesia Content. (Oflyusovannyy aglomerat s povyshennym soderzhaniyem magnezii, Russian).

PERIODICAL: Stal', 1957, Vol 17, Nr 1, pp 20 - 24, (U.S.S.R.).
Received: 5 / 1957 Reviewed: 5 / 1957.

ABSTRACT: It was the purpose of the present work to examine the proposals made by A.G.Neyasov for the increase of the magnesia content in the agglomerate for improving their strength and their reducibility. Agglomeration (sintering) tests are described. The mixing of the charge layer, the method of charging the bucket, and igniting the layer were investigated. It was found that the quality of agglomerates with additional charges (fluxes) depends in many respects on the magnesia content. in order to increase the constancy of the properties of the agglomerate obtained it is advisable to keep the following conditions on a constant level in the agglomerate layer: (CaO + MgO) : (SiO_2 + Al_2O_3) and MgO : (CaO + MgO) or CaO : SiO_2 and MgO : (CaO + MgO). In order to increase strength and reducibility, the magnesia content, i.e. the ratio MgO : (CaO +MgO), must be increased. In order to be able to determine the optimum magnesia content in the agglomerate, it is necessary that tests be carried out with a 3 % MgO content and more in the agglomerate. (2 tables and 6 illustrations).

Card 1/2

PA - 2373

Fluxed Sinter with Increased Magnesia Content.

ASSOCIATION: Metallurgical Combine of Magnitogorsk.
PRESENTED BY:
SUBMITTED:
AVAILABLE: Library of Congress.
Card 2/2

VINOGRADOV, V.S., inzh.; AL'TSHULER, M.A., kand. tekhn. nauk; POLYAKOV, V.G., inzh.; KUROCHKIN, A.N., inzh.; KARMAZIN, V.I., doktor tekhn. nauk; ZAIKIN, S.A., inzh.; OSTROVSKIY, G.P., inzh.[deceased]; NAUMENKO, P.I., inzh.; BOBRUSHKIN, L.G., inzh.; RUSTAMOV, I.I., inzh.; SHIFRIN, I.I., inzh.; GOLOVANOV, G.A., inzh.; KRASOVSKIY, L.A., inzh.; TSIMBALENKO, L.N., inzh.; RAVIKOVICH, I.M., inzh.; BAZILEVICH, S.V., kand. tekhn.nauk; ZORIN, I.P., inzh.; ZUBAREV, S.N., inzh.; TIKHOVIDOV, A.F., inzh.; SHITOV, I.S., inzh.; GAMAYUROV, A.I., inzh.; KUSEMBAYEV, Kh.N., inzh.; DEKHTYAREV, S.I., inzh.; VORONOV, I.S., inzh.; BURMIN, G.M., inzh.; BARYSHEV, V.M., inzh.; GOLOVIN, Yu.P., inzh.; MARCHENKO, K.F., inzh.; RYCHKOV, L.F., inzh.; NESTERENKO, A.M., inzh.; KABANOV, V.F., inzh.; PATRIKEYEV, N.N., inzh.[deceased]; ROSSMIT, A.F., inzh.; SOSEDOV, O.O., inzh.; POKROVSKIY, M.A., inzh., retsenzent: POLOTSK, S.M., red.; GOL'DIN, Ya.A., glav. red.; GOLUBYATNIKOVA,G.S., red. izd-va; BOLDYREVA, Z.A., tekhn. red.

[Iron mining and ore dressing industry]Zhelezorudnaia promyshlennost'. Moskva, Gosgortekhizdat, 1962. 439 p.
(MIRA 15:12)

1. Moscow. TSentral'nyy institut informatsii chernoy metallurgii.
(Iron mines and mining) (Ore dressing)

RUDNEVA, A.V.; MALYSHEVA, T.Ya.; SOKOLOV, G.A.; GUL'TYAY, I.I.;
Prinimali uchastiye: GALATONOV, A.L.; GAMAYUROV, A.I.;
BABARYKIN, N.N.; KOSTIN, I.M.

Changes in the material composition of industrial sinter along the cake height. Stal' 22 no.1:5-9 Ja '62. (MIRA 14:12)

1. Institut metallurgii imeni A.A. Baykova (for Rudneva, Malysheva, Sokolov, Gul'tyay). 2. Magnitogorskiy metallurgicheskiy kombinat (for Galatonov, Gamayurov, Babarykin, Kostin).
(Sintering)

ZUDIN, V.M.; YAKOBSON, A.P.; KOSTIN, I.M.; GALATONOV, A.L.; GAMAYUROV, A.I.; TSVERLING, A.L.; MALYSHEVA, T.Ya.; SOKOLOV, G.A.; RUDNEVA, A.V.; TSYLEV, L.M.; GUL'TYAY, I.I.

Effect of the sintering temperature on the mineralogical composition of sinter and its metallurgical properties. Stal' 23 no.6:481-485 Je '63. (MIRA 16:10)

1. Magnitogorskiy metallurgicheskiy kombinat i Institut metallurgii im. A.A.Baykova.

ACC NR: AP6031391

SOURCE CODE: UR/0079/66/036/009/1677/1679

AUTHOR: Chernokal'skiy, B. D.; Gamayurova, V. S.; Kamay, G. Kh.

ORG: Kazan Chemical Technology Institute im. S. M. Kirov (Kazanskiy khimiko-tekhnologicheskiy institut)

TITLE: Ionization constants of some alkylarsonic acids

SOURCE: Zhurnal obshchey khimii, v. 36, no. 9, 1966, 1677-1679

TOPIC TAGS: ionization constant, alkylarsonic acid, sodium compound, arsenic compound, alkali halide, ionization

ABSTRACT: The acids were prepared by the known reaction of sodium arsenite with alkyl halides. Their ionization constants were determined by potentiometric titration. Values of the ionization constants are given in the table.

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Table 1. Conditions of synthesis and properties of alkylarsonic acids

$RAs(OH)_2$
$\downarrow$
O

No.	R	Alkyl halide used	Reaction time		mp Found	mp Literature data	pK_1	pK_2
1	CH_3	CH_3J	—	10	154—155°	159° [4]	4.58	7.82
2	C_2H_5	C_2H_5Br	82	52	94—95	95—96 [3]	4.72	8.00
3	$CH_2=CH-CH_2$	C_3H_5Br	82	24	126—127	126—128 [3]	4.48	7.51
4	$(CH_3)_2CH$•	$(CH_3)_2CHBr$	56	370	119	—	4.81	8.36
5	C_4H_9	C_4H_9Br	68	51	152—153	153 [4]	4.76	—
6	$(CH_3)_2CHCH_2$••	$(CH_3)_2CHCH_2Br$	69	180	169—170	—	4.79	8.18
7	$C_6H_5CH_2$	$C_6H_5CH_2Cl$	90	6	180—182	167—168 [3]	4.43	7.51

The ionization constants can be correlated to the Taft σ*-constants.
[WA-50; CBE No. 12]

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Card 2/2